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MATX 601
Final Project: Aldo Leopold and *A Sand County Almanac*

Aldo Leopold's *A Sand County Almanac: And Sketches Here and There* is a groundbreaking work, a cornerstone upon which much of the philosophy and ethics of the modern environmental movement is based. The book is arguably an amalgam of texts—it consists of three potentially independent, yet still mutually supporting, texts. The first part, "A Sand County Almanac," is made of twelve monthly essays that chronicle the life on and around his farm along the Wisconsin River near Baraboo, Wisc., and his relationship with his animal and plant neighbors. The second part, "Sketches Here and There," features a series of essays that chronicle his personal evolution from a young man steeped in the nineteenth century ideology of man's dominion over nature to an older man of the twentieth century who sees himself and his fellow humans as stewards of nature—not because of any inherent superiority on humanity's part, but because the destructive power of our technologies makes it our responsibility to use those technologies wisely. The third part, "The Upshot," consists of four essays that call for and outline substantial changes in our relationship with nature. In Leopold's evolved view, humans are not the lords of the natural world, but citizens of it, and he outlined an ethic—the Land Ethic—to guide our interactions with that world.

In this essay, I will summarize the history of *A Sand County Almanac*, examine its intertextuality, and demonstrate how the work (*sensu* Barthes) contains elements that transcend the limitations of the medium in which it was originally published.

The work known as *A Sand County Almanac* was nearly unfinished. Leopold began the project in 1937—two of the essays that make up "The Upshot," were published before the book appeared in 1949—was he was still working on it when he learned it was accepted for

publication by Oxford University Press in 1948. A week later, on April 21, he died of a heart attack while helping a neighbor fight a grass fire. His son, Luna Leopold, led a group of family members and colleagues in the effort to edit the final manuscript. They were responsible for one major revision—changing the title from Leopold's working title, *Great Possessions*.[1]

In the first paragraphs of the foreward, Leopold fires a shot across the bow of all who sail with blind faith in technological progress, unregulated markets, and endless consumerism:

> There are some who can live without wild things, and some who cannot. These essays are the delights and dilemmas of one who cannot.
>
> Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still higher 'standard of living' is worth its cost in things natural, wild, and free. For us of the minority, the opportunity to see geese is more important than television, and the chance to find a pasque-flower is a right as inalienable as free speech.
>
> These wild things, I admit, had little human value until mechanization assured us of a good breakfast, and until science disclosed the drama of where they come from and how they live. The whole conflict thus boils down to a question of degree. We of the minority see a law of diminishing returns in progress; our opponents do not. (Leopold 1987, vii)

Foucault argued that books are mere "nodes within a network" (Foucault 1974, 23) full of references to other works and texts, and referred to by other works and texts. The opening lines of *A Sand County Almanac*, as they echo the writing of other authors, such as Henry David Thoreau in *Walden*, support Foucault's notion of interconnections with other works—i.e., intertextuality.

> Our village life would stagnate if it were not for the unexplored forests and meadows which surround it. We need the tonic of wildness,—to wade sometimes in marshes where the bittern and the meadow-hen lurk, and hear the booming of the snipe; to smell the whispering sedge where only some wilder and more solitary fowl builds her nest, and the mink crawls with its belly close to the ground. At the same time that we are earnest to explore and learn all things, we require that all things be mysterious and unexplorable, that land and sea be

[1] Whether Aldo Leopold would have agreed or not, I fully endorse the change. *A Sand County Almanac* is a much better title.

> infinitely wild, unsurveyed and unfathomed by us because unfathomable. We can never have enough of Nature. We must be refreshed by the sight of inexhaustible vigor, vast and Titanic features, the sea-coast with its wrecks, the wilderness with its living and its decaying trees, the thunder-cloud, and the rain which lasts three weeks and produces freshets. We need to witness our own limits transgressed, and some life pasturing freely where we never wander. (Thoreau 1904, 245)

In addition, Leopold's words are echoed by others. Again, in his foreward to *A Sand County Almanac*, he explained why humanity found it so easy to abuse the natural world that sustains us:

> Conservation is getting nowhere because it is incompatible with our Abrahamic concept of land. We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect. There is no other way for land to survive the impact of mechanized man, nor for us to reap from it the esthetic harvest it is capable, under science of contributing to culture. (Leopold 1987, viii)

Leopold's concept of a Land Ethic influenced many in the environmental movement that developed in the post-World War II years, both in terms of writing styles and themes. For example, Carl Safina, author of *Song for the Blue Ocean*, has taken up Leopold's call for a new vision of our relationship with nature and applied that vision explicitly to the world's oceans, enumerating what he calls a Sea Ethic:

> Of course, we also inflict disregard upon the land, but we consider the sea even further outside of us, rather than seeing ourselves within the ocean's life-sustaining envelope of breathable atmosphere and stabilized temperature. Even many of us who maintain a nature ethic don't give the sea much thought. We don't consider what we do to "the oceans" the same as what we do to our families, our communities.
>
> We act like the ocean is merely a source of materials and a sink largely because we lack an ethical framework encouraging us to see otherwise. An ethic is not a strategy or a prescription or remedy. An ethic is a concept of relationship—one we wish to acknowledge or one we seek to forge. …
>
> The realms we call aesthetic, spiritual, climatological, nutritional, and ethical interlock to form what we call the quality of life—which we can define as the proximity of the real to the ideal. The wealth of oceans spans these realms. Recognizing the ocean's importance to life and to human futures would engender a sense of moral engagement. It would mean showing and sharing our sense of connectedness, dependence, gratitude, and commitment to the sea, whose gifts include making this planet capable of supporting Life itself. (Safina 2005, 1-2)

Chandler (2003) notes that the concept of intertextuality extends beyond the bounds of art and literature. He writes, "Intertextuality blurs the boundaries not only between texts but between texts and the world of lived experience. Indeed, we may argue that we know no pre-textual experience. The world as we know it is merely its current representation." In light of this, one has to consider many factors that are part of Leopold's "text." For example, his farm—a weekend retreat for his family—is a significant component of *A Sand County Almanac.* When he bought it, the 120-acre parcel was worn out by decades of unwise farming practices, but he worked to replenish something of what had existed before it had been put to the plow, planting trees, restoring some of the native prairie plants, and welcoming the animals that used them. It does not seem a particularly spectacular location for someone enthralled with the natural world. It is rather flat, except for natural levees along the Wisconsin River. The soils are mostly sand and silt deposited by many millennia of floods. Yazoos, oxbow lakes, and abandoned river channels abound, typically full of slow-moving or stagnant water. Nevertheless, with the right eye—as Leopold had—one can see great potential for re-establishing a suitable home for both humans and nature.

The text extends beyond the farm. Leopold, born in 1887, hailed from Burlington, Iowa, and spent much of his youth chronicling the life of the land that surrounded him. He attended Yale's relatively new School of Forestry (established in 1901), where much of the research that formed the foundation of what we call now call environmental science was being conducted. In 1909, he began to apply what he had learned in the nascent U.S. Forest Service, which was itself established in 1905. He worked in Arizona, first at Apache-Sitgreaves National Forest, and later at Carson National Forest in New Mexico. He quickly rose through the ranks and by 1912 was appointed supervisor of Carson National Forest. By the time he was transferred to the Forest

Products Laboratory in Madison, Wisc., in 1924, he wrote the Forest Service's first game management handbook, helped write the first comprehensive management plan for the Grand Canyon, and successfully proposed the world's first wilderness area: the Gila Wilderness Area in New Mexico. After moving to Wisconsin, he became a forestry consultant, wrote the first wildlife management textbook, accepted a position at the University of Wisconsin to become the nation's first professor in what we now call wildlife ecology, and helped establish the Wilderness Society. All of this experience, from early mistakes—such as wantonly killing wolves in the southwest (chronicled in the essay "Thinking Like a Mountain") to his hard-won insights from parts of the text that became *A Sand County Almanac.* We can see the evolution of his thought from exploitation to conservation in this excerpt from his essay, "The Wilderness and Its Place In Forest Recreational Policy," Published in 1921 in the *Journal of Forestry*:

> When the National Forests were created the first argument of those opposing a national forest policy was that the forests would remain a wilderness. Gifford Pinchot replied that on the contrary they would be opened up and developed as producing forests, and that such development would, in the long run, itself constitute the best assurance that they would neither remain a wilderness by "bottling up" their resources nor become one through devastation. At this time Pinchot enunciated the doctrine of the "highest use," and its criterion, "the greatest good to the greatest number," which is and must remain the guiding principle by which democracies handle their natural resources.
>
> Pinchot's promise of development has been made good. The process must, of course, continue indefinitely. But it has already gone far enough to raise the question of whether the policy of development (construed in the narrower sense of industrial development) should continue to govern in absolutely every instance, or whether the principle of highest use does not itself demand that representative portions of some forests be preserved as wilderness. (Leopold 1921, 718)

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*A Sand County Almanac* is more than a written work. Leopold, who spent a dozen years working on the book, carefully crafted his prose to fill it with the images and sounds of his life. The aural and visual richness of his writing make some kind of multimedia presentation a logical

step in the evolution of his text. The richness certainly evokes what Jennifer DeVere Brody refers to as "culture at work, as a material entity that motivates movement and engages its audience in visceral, embodied ways" (Brody 2001, 96).

The almanac portion of A Sand County Almanac begins with a stunning delivery of sound and image—all in the first two paragraphs of the January essay, "January Thaw":

> Each year, after the midwinter blizzards, there comes a night of thaw when the tinkle of dripping water is heard in the land. It brings strange stirrings, not only to creatures abed for the night, but to some who have been asleep for the winter. The hibernating skunk, curled up in his deep den, uncurls himself and ventures forth to prowl the wet world, dragging his belly in the snow. His track marks one of the earliest datable events in that cycle of beginnings and ceasings which we call a year.
>
> The track is likely to display an indifference to mundane affairs uncommon at other seasons; it leads straight across-country, as if its maker had hitched his wagon to a star and dropped the reins. I follow, curious to deduce his state of mind and appetite, and destination if any. (Leopold 1987, 3)

I cannot predict the effect of this prose to someone whose only experience is of urban environments. But I have lived through midwinter blizzards. I have tracked across open spaces in snow. I have heard the drip of melting and running water on the landscape. And I have encountered skunks—once seeing the business end of one at point-blank range. (I was spared the indignity of being perfumed.) Everything Leopold writes rings true. As I read the passage, I hear my footsteps in the snow. I feel the cold biting my toes, fingers, and face. In other seasons, skunks ramble through the landscape, making comic noises and not particularly giving a damn what you think—as long as you keep a respectable distance. To see one head with purpose in a straight line, that is a mystery to be pursued, even if higher faculties suggest it is wiser to go back home and pour oneself a hot cup of coffee.

As Leopold follows the skunk's track, he runs across a meadow mouse disturbed by the collapse of tunnels it has carefully crafted beneath the snow. He observes a rough-legged hawk

dropping like a bomb into a marsh—probably to pounce upon its next meal. He studies a clearing where oak seedlings have been gnawed by rabbits, where tufts of rabbit-hair indicate battles among young males in the fullness of raging sex hormones, and a bloody patch where one met its end in the talons of an owl.

> The skunk track leads on, showing no interest in possible food, and no concern over the romping or retributions of his neighbors. I wonder what he has on his mind; what got him out of bed? Can one impute romantic motives to this corpulent fellow, dragging his ample beltline through the slush? Finally, the track enters a pile of driftwood, and does not emerge. I hear the tinkle of dripping water among the logs, and I fancy the skunk hears it too. I turn homeward, still wondering. (Leopold 1987, 5)

While Leopold (and, by extension, we) never find the answer to the mystery of the wandering skunk, we—through the imagery Leopold deftly employs—learn quite a bit about his neighbors who likewise remain for the winter.

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The second monthly essay, "Bur Oak," is one of my favorites because Leopold invokes a scientific discipline I happen to practice: dendrochronology, or tree-ring science. The chapter begins with a fire, fueled by the wood from a oak killed by a lightning strike. From the stump, he can tell a lot about the history of the tree.

> The particular oak now aglow on my andirons grew on the bank of the old emigrant road where it climbs the sandhill. The stump, which I measured upon felling the tree, has a diameter of 30 inches. It shows 80 growth rings, hence the seedling from which it originated must have laid its first ring of wood in 1865, at the end of the Civil War. But I know from the history of present seedlings that no oak grows above the reach of rabbits without a decade or more of getting girdled each winter, and re-sprouting during the following summer. Indeed, it is all too clear that every surviving oak is the product either of rabbit negligence or of rabbit security. … (Leopold 1987, 7)

Leopold backtracks to tell the story of the death of the tree, but also in its continued life in its numerous progeny that have "taken over its job of wood-making." He then recounts the felling of

the tree, and his sense that each pull of the saw slices through a bit of the tree's, and humanity's, history.

> We let the dead veteran season for a year in the sun it could no longer use and then on a crisp winter's day we laid a newly filed saw to its bastioned base. Fragrant little chips of history spewed from the saw cut, and accumulated on the snow before each kneeling sawyer. We sensed that these two piles of sawdust were something more than wood: that they were the integrated transect of a century; that our saw was biting its way, stroke by stroke, decade by decade, into the chronology of a lifetime, written in concentric annual rings of good oak. (Leopold 1987, 9)

Leopold then proceeds to go through history in reverse chronological order—in the order, of course, that the tree is being cut. The pacing is consistent with the physical effort in sawing wood, sustained effort followed by breaks to catch one's breath. The reader feels the

> Now our saw bites into the 1880's; into 1889, a drouth year in which Arbor Day was first proclaimed; into 1887, when Wisconsin appointed its first game wardens; into 1886, when the College of Agriculture held its first short course for farmers; into 1885, preceded by a winter of 'unprecedented length and severity'; into 1883, when Dean W. H. Henry reported that the spring flowers at Madison bloomed 13 days later than average; into 1882, the year Lake Mendota opened a month late following the historic 'Big Snow' and bitter cold of 1881-82.
>
> It was likewise in 1881 that the Wisconsin Agricultural Society debated the question, 'How do you account for the second growth of back oak timber that has sprung up all over the country in the last thirty years?' My oak was one of these. One debater claimed spontaneous generation, another claimed regurgitation of acorns by southbound pigeons.
>
> Rest! cries the chief sawyer, and we pause for breath. (Leopold 1887, 13)

I have had the pleasure of looking at a piece of several-hundred year wood and wondering at the history recorded. I have seen and touched the year Custer led his men to disaster at Little Big Horn. I have seen and touched the years between 1861 and 1865 when my ancestors alternatively fought in and deserted from the Civil War. I have seen and touched 1815, when several of my ancestors fought at, and one was killed at the Battle of New Orleans, and 1610, when my first ancestor landed in Virginia. I have seen and touched years farther back, such as 1066, when

Harold bravely fought, but was defeated by William at Hastings. I have looked at wood more than 2,000 years old, and seen and touched rings in the years that Pompeii was destroyed and Julius Caesar was assassinated. The trees I have seen, as the tree that Leopold cuts down, are themselves a text into whose rings we read the history of the environment as well as of ourselves. Leopold's writing in this chapter aptly demonstrates both multimedia potential and intertextuality.

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One of the essays for April is called "Sky Dance." In it, Leopold's describes a mating ritual among American woodcock, a small bird native to America's grasslands. His account provides all the visuals one needs to "see" the dance, which he describes as a performance:

> The show begins on the first warm evening in April at exactly 6:50 p.m. The curtain goes up exactly one minute later each day until 1 June, when the time is 7:50. This sliding scale is dictated by vanity, the dancer demanding a romantic light intensity of exactly 0.05 foot-candles. Do not be late, and sit quietly, lest he fly away in a huff.
>
> The stage props, like the opening hour, reflect the temperamental demands of the performer. The stage must be an open amphitheater in woods or brush, and in its center there must be a mossy spot, a streak of sterile sand, a bare outcrop of rock, or a bare roadway. Why the male woodcock should be such a stickler for a bare dance floor puzzled me at first, but I know think it is a matter of legs. The woodcock's legs are short, and his struttings cannot be executed to advantage in dense grass or weeds, nor could his lady see them there. I have more woodcocks than most farmers because I have more mossy sand, too poor to support grass.
>
> Knowing the place and the hour, you seat yourself under a bush to the east of the dance floor and wait, watching against the sunset for the woodcock's arrival. He flies in low from some neighboring thicket, alights on the bare moss, and at once begins the overture: a series of queer throaty *peents* spaced about two seconds apart, and sounding much like the summer call of the nighthawk.
>
> Suddenly the peenting ceases and the bird flutters skyward in a series of wide spirals, emitting a musical twitter. Up and up he goes, the spirals steeper and smaller, the twittering louder and louder, until the performer is only a speck in the sky. Then, without warning, he tumbles like a crippled plane, giving voice in a soft liquid warble that a March bluebird might envy. At a few feet from the

> ground he levels off and returns to his peenting ground, usually to the exact spot where the performance begins, and there resumes his peenting.
>
> It is soon too dark to see the bird on the ground, but you can see his flights against the sky for an hour, which is the usual duration of he show. On moonlight nights, however, it may continue, at intervals, as long as the moon continues to shine.
>
> At daybreak the whole show is repeated. In early April the final curtain falls at 5:15 a.m.; the time advances two minutes a day until June, when the performance closes for the year at 3:15. (Leopold 1987, 30-31)

When compared to some of the available videos on YouTube, such as "American Woodcock Air Dance" or "Ground Dance of the Woodcock.avi,"[2] the imagery in Leopold's writing is much more effective in conveying the beauty of the dance than the actual imagery captured through a video camera.

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There is one more essay in *A Sand County Almanac* I would like to examine in terms of the richness of its imagery. Unlike the other examples, drawn from the "Almanac" portion of the book, this one, "Thinking Like a Mountain," is taken from the "Sketches" section. It describes the moment where he realized his antipathy toward wolves—derived from centuries of Western prejudice against the animals—was wrong.

> My own conviction on this score dates from the day I saw a wolf die. We were eating lunch on a high rimrock, at the foot of which a turbulent river elbowed its way. We saw what we thought was a doe fording the torrent, her breast awash in white water. When she climbed the bank toward us and shook out her tail, we realized our error: it was a wolf. A half-dozen others, evidently grown pups, sprang from the willows and all joined in a welcoming mêlée of wagging tails and playful maulings. What was literally a pile of wolves writhed and tumbled in the center of an open flat at the foot of our rimrock.
>
> In those days we had never heard of passing up a chance to kill a wolf. In a second we were pumping lead into the pack, but with more excitement than accuracy: how to aim a steep downhill shot is always confusing. When our rifles were empty, the old wolf was down, and a pup was dragging a leg into impassable slide-rocks.

[2] Links to the videos are provided in the bibliography.

> We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes—something known only to her and to the mountain. I was young then, and full of trigger-itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunters' paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view. (Leopold 1987, 129-130)

I find it hard to read this passage. I suspect Leopold found it hard to write. I have made similar mistakes in my life and regret my failures of empathy with other species.[3] I feel, and I am sure the elder Leopold likewise felt, a bond with the species—seeing more dedicated family groups in their social structure than the evil predators of our fairy tales. He reveals something of that family structure in the "playful maulings" of his essay—written decades before scientific studies fully documented the family structure of wolf packs and at least somewhat rehabilitated the reputation of the wolf. The "green fire" in the eyes of the dying wolf symbolizes something we too have lost in the neglect of our relationship with nature.

The images and sounds, such as these that Leopold carried into his later years, certainly inspired his enlightened thinking regarding wilderness, wildlife management, and the ethical principles he outlined in the final section of *A Sand County Almanac.* The effectiveness with which he translated those sounds and images into words gave them extended life as well as power to inspire others—which is why *A Sand County Almanac* is rivaled by only a handful of works as touchstones of the environmental movement. *A Sand County Almanac* is filled with imagery that can be translated into some other medium, such as video. For example, listen to Dave Foreman's presentation on "The Green Fire Wolf" or watch the preview of Jeannine Richards's documentary film, "Green Fire: Aldo Leopold and the Land Ethic in the 21st

[3] Nevertheless, my reluctance to harm animals led to my switching from a goal of becoming a zoologist to becoming a plant geographer early in my academic career.

Century."[4] Foreman's presentation and reading of excerpts from "Green Fire" is emotionally powerful. Richards's film will be an excellent educational tool. But, given the richness that is already present in *A Sand County Almanac*, I have to conclude there is no substitute for the original.

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